



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:
Tarenskeen, et al.

Serial No. 09/997,442

Filed: November 29, 2001

For: Parallel Migration of Data Between Systems

§ Attorney Docket No. 10185
§
§ Customer No. 26890
§
§ Group Art Unit: 2162
§
§ Examiner: Fleurantin, Jean B.
§
§ Confirmation Number: 3435

BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

This Brief is submitted in connection with an appeal for which a Notice of Appeal was filed 8 September 2008, from the final rejection of the Examiner dated 9 June 2008 finally rejecting claims 10-30.

The Director is hereby authorized to charge any deficiency fees in association with this communication to Deposit Account No. 50-4370.

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11-10-08 Michelle George
Date Michelle George

REAL PARTY IN INTEREST

The real party in interest is Teradata Corporation, a corporation having a principal place of business at 2835 Miami Village Drive, Miamisburg, OH 45342, the United States of America.

RELATED APPEALS AND INTERFERENCES

There are no related appeals and no related interferences regarding the above-identified patent application.

STATUS OF CLAIMS

Claims 10-30 are pending and stand finally rejected, and claims 1-9 and 31 have been withdrawn. Claims 10-30 are on appeal here and are set forth in the Claims Appendix attached hereto.

STATUS OF AMENDMENTS

No amendments were made to any of claims 10-30 after the Final Office Action was filed 9 June 2008.

SUMMARY OF CLAIMED SUBJECT MATTER

An embodiment, as set forth in independent claim 10, relates to a method of migrating data, comprising archiving data from a source table in a source database system (Page 4, Paragraph 21, Lines 2-4; Page 7, Paragraph 34, Lines 1-4; Page 11, Paragraph 48, Lines 1-5; Page 14, Paragraph 59, Lines 1-4; Page 14, Paragraph 60, Lines 2-5; Page 15, Paragraph 64, Lines 7-8; Page 17, Paragraph 68, Lines 1-6), transferring groups (Figure 2, elements 102) of the archived data, in parallel, to corresponding temporary tables (Figure 2, elements 104) in a target database system (Page 2, Paragraph 9, Lines 3-5; Page 7, Paragraph 36, Line 1 - Page 8, Line 1; Page 8, Paragraph 37, Lines 1-2; Page 8, Paragraph 39, Line 6-Page 9, Paragraph 39, Line 1; Page 10, Paragraph 42, Lines 4-8; Page 10, Paragraph 43, Lines 4-6; Page 11, Paragraph 46, Lines 1-3; Page 15, Paragraph 61, Lines 1-3; Page 15, Paragraph 64, Lines 8-10; Page 18, Paragraph 73, Lines 1-3), inserting data from the temporary tables into a target table in the target database system (Page 2, Paragraph 9, Lines 5-6; Page 8, Paragraph 36, Lines 1-4; Page 9, Paragraph 40, Lines 4-6 and Lines 13-13; Page 10, Paragraph 43, Lines 6-7; Page 11, Paragraph 46, Lines 3-4; Page 15, Paragraph 62, Lines 1-2; Page 15, Paragraph 64, Line 10-Page 16, Line 4), and making data in the target table available for execution of database queries against that data (Page 5, Paragraph 25, Lines 1-4; Page 5, Paragraph 26, Lines 1-3).

Another embodiment, as set forth in independent claim 22, relates to a method of migrating data from a first source table in a first database system to a second database system, comprising receiving groups (Figure 2, elements 102) of data from the source table from an intermediate medium into corresponding temporary tables (Figure 2, elements 104) in the second database system (Page 2, Paragraph 9, Lines 3-5; Page 7, Paragraph 36, Line 1 - Page 8, Line 1; Page 8, Paragraph 37, Lines 1-2; Page 8, Paragraph 39, Line 6-Page 9, Paragraph 39, Line 1; Page 10, Paragraph 42, Lines 4-8; Page 10, Paragraph 43, Lines 4-6; Page 11, Paragraph 46, Lines 1-3; Page 15, Paragraph 61, Lines 1-5; Page 15, Paragraph 64, Lines 8-10; Page 18, Paragraph 73, Lines 1-3), defining the temporary tables according to definitions of the source table (Page 9, Paragraph 42, Line 1-Page 10, Line 6; Page 10, Paragraph 45, Line 3-Page 11, Line 3;), inserting rows of the temporary tables into a target table in the second database system (Page 2, Paragraph 9, Lines 5-6; Page 8, Paragraph 36, Lines 1-4; Page 9, Paragraph 40,

Lines 4-6 and Lines 13-13; Page 10, Paragraph 43, Lines 6-7; Page 11, Paragraph 46, Lines 3-4; Page 15, Paragraph 62, Lines 1-2; Page 15, Paragraph 64, Line 10-Page 16, Line 4), and making data in the target table available for execution of database queries against that data (Page 5, Paragraph 25, Lines 1-4; Page 5, Paragraph 26, Lines 1-3).

Another embodiment, as set forth in independent claim 26, relates to an article comprising at least one storage medium containing instructions that when executed (Page 18, Paragraph 75-Page 19, Paragraph 76) cause a target database system to receive one or more queries to set up temporary tables in the target database system (Page 5, Paragraph 27, Lines 5-7, Page 9, Paragraph 42, Line 1-Page 10, Line 6; Page 10, Paragraph 45, Line 3-Page 11, Line 3; Page 15, Paragraph 64, Lines 3-5), receive, in parallel, groups (Figure 2, elements 102) of data from a source table in a source database system into the temporary tables (Page 2, Paragraph 9, Lines 3-5; Page 7, Paragraph 36, Line 1 - Page 8, Line 1; Page 8, Paragraph 37, Lines 1-2; Page 8, Paragraph 39, Line 6-Page 9, Paragraph 39, Line 1; Page 10, Paragraph 42, Lines 4-8; Page 10, Paragraph 43, Lines 4-6; Page 11, Paragraph 46, Lines 1-3; Page 15, Paragraph 61, Lines 1-3; Page 15, Paragraph 64, Lines 8-10; Page 18, Paragraph 73, Lines 1-3; Figure 2, elements 104)), insert data from the temporary tables into a target table in the target database system (Page 2, Paragraph 9, Lines 5-6; Page 8, Paragraph 36, Lines 1-4; Page 9, Paragraph 40, Lines 4-6 and Lines 13-13; Page 10, Paragraph 43, Lines 6-7; Page 11, Paragraph 46, Lines 3-4; Page 15, Paragraph 62, Lines 1-2; Page 15, Paragraph 64, Line 10-Page 16, Line 4), and make the data in the target table available for execution of database queries against that data (Page 5, Paragraph 25, Lines 1-4; Page 5, Paragraph 26, Lines 1-3).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

I. Claims 10-12 and 15-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,151,608 to Abrams ("Abrams") in view of U.S. Patent 5,404,507 to Bohm et al. ("Bohm").

II. Claims 26-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Abrams in view of Bohm and further in view of U.S. Patent No. 6,651,074 to Taylor ("Taylor") and U.S. Patent No. 5,084,789 to Kamo et al. ("Kamo").

ARGUMENT

ISSUE 1 - Rejections Under 35 U.S.C. § 103(a) Over Abrams in View of Bohm

The first issue for the Board's consideration is whether claims 10-12 and 15-25 are unpatentable under 35 U.S.C. § 103(a) over Abrams in view of Bohm.

For purposes of this appeal, claims 11-25 stand or fall together with claim 10 in view of the rejection of claim 10 under 35 U.S.C. § 103(a) over Abrams in view of Bohm.

As detailed below, the Appellants believe that Abrams and Bohm are insufficient to obviate claim 10. More specifically, it is the Appellants' belief that the Examiner has failed to provide a *prima facie* case of obviousness with regard to claim 10.

Claims 10-25

Appellants traverse the rejection of these claims on the grounds that Abrams and Bohm are defective in establishing a *prima facie* case of obviousness with respect to claim 10. Claim 10 recites the following:

10. A method of migrating data, comprising:
 - archiving data from a source table in a source database system;
 - transferring groups of the archived data, in parallel, to corresponding temporary tables in a target database system;
 - inserting data from the temporary tables into a target table in the target database system; and
 - making data in the target table available for execution of database queries against that data.

As the PTO recognizes in MPEP § 2142:

... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness for the following reasons:

Even When Combined, the References Do Not Teach the Claimed Subject Matter

The Abrams and Bohm references cannot be applied to reject claim 10 under 35 U.S.C. § 103 which provides that:

A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since neither Abrams nor Bohm teaches a method of migrating data including “transferring groups of the archived data, in parallel, to corresponding temporary tables in a target database system” and “inserting data from the temporary tables into a target table in the target database system” as is claimed in claim 10, it is impossible to render the subject matter of claim 10 as a whole obvious, and the explicit terms of the statute cannot be met.

With regard to the claim 10 limitations of “transferring groups of the archived data, in parallel, to corresponding temporary tables in a target database system” and “inserting data from the temporary tables into a target table in the target database system”, the Examiner cited the following passage of Abrams as allegedly disclosing such method steps:

1. Load Data into a Temporary Table

There are two approaches to **loading the data into a temporary table** depending on whether the source data is in an ASCII file or whether it resides in another Oracle table. For data originating from a non-Oracle source, the invention provides a format for an ASCII file into which the user can extract data from a non-Oracle source and use SQL*Loader to **insert the data into an Oracle temporary table**. Before this invention, the user had to write validations, translations, and change the format of the data as part of coding the SQL*Loader script. Using the invention, however, the user only needs to create an extract table and dump it into the temporary Oracle table. For source data originating in an Oracle table, the invention uses an automatic upload process to **load the source table to the temporary table**. The format and characteristics of the data in the temporary table do not matter since the invention will later reformat the data to fit into the destination table.

Abrams, Column 12, Lines 5-22 (**Emphasis Added**).

Appellants respectfully disagree. Here, Abrams is clear that for a particular data migration, the data from a source is transferred to a *single temporary table*. Abrams is no manner describes transferring **groups of the archived data**, in parallel, to **corresponding temporary tables**. Rather, Abrams transfers the data to be archived to a common temporary table.

Because Abrams fails to disclose transferring groups of the archived data, in parallel, to corresponding temporary tables, Abrams is necessarily precluded from disclosing inserting data **from the temporary tables** into a target table in the target database system. Bohm provides for none of the deficiencies of Abrams. For at least this reason, Abrams and Bohm are insufficient to obviate claim 10, and withdrawal of the rejection of claim 10 is thus requested.

Independent claim 22 recites similar features as claim 10 and was rejected under similar rationale. Therefore, the same distinctions between Abrams and Bohm and the claimed invention in claim 10 apply for claim 22. For at least the reasons described above, Abrams and Bohm fail to obviate claim 22, and withdrawal of the rejection of claim 22 is respectfully requested.

Since claims 11-21 depend from claim 10, and claims 23-25 depend from claim 22, the same distinctions between claims 10 and 22 apply for these claims. Additionally, claims 11-21 and 23-25 claim other additional combinations of features not suggested by the cited references.

ISSUE 2 - Rejections Under 35 U.S.C. § 103(a) Over Abrams in View of Bohm, Taylor, and Kamo

The second issue for the Board's consideration is whether claims 26-30 are unpatentable under 35 U.S.C. § 103(a) over Abrams in view of Bohm and further in view of Taylor and Kamo.

For purposes of this appeal, claims 27-30 stand or fall together with claim 26 in view of the rejection of claim 26 under 35 U.S.C. § 103(a) over Abrams in view of Bohm, Taylor and Kamo.

As detailed below, the Appellants believe that Abrams, Bohm, Taylor, and Kamo are insufficient to obviate claim 26. More specifically, it is the Appellants' belief that the Examiner has failed to provide a *prima facie* case of obviousness with regard to claim 26.

Claims 26-30

Appellants traverse the rejection of these claims on the grounds that Abrams, Bohm, Taylor, and Kamo are defective in establishing a *prima facie* case of obviousness with respect to claim 26. Claim 26 recites the following:

26. An article comprising at least one storage medium containing instructions that when executed cause a target database system to:
 receive one or more queries to set up temporary tables in the target database system;
 receive, in parallel, groups of data from a source table in a source database system into the temporary tables;
 insert data from the temporary tables into a target table in the target database system; and
 make the data in the target table available for execution of database queries against that data

As the PTO recognizes in MPEP § 2142:

... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness for the following reasons:

Even When Combined, the References Do Not Teach the Claimed Subject Matter

The Abrams, Bohm, Taylor, and Kamo references cannot be applied to reject claim 26 under 35 U.S.C. § 103 which provides that:

A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (Emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since Abrams, Bohm, Taylor nor Kamo teaches a an article comprising instructions that when executed cause a database to “receive, in parallel, groups of data from a source table in a source database system into the temporary tables” and “insert data from the temporary tables into a target table in the target database system” as is claimed in claim 26, it is impossible to render the subject matter of claim 26 as a whole obvious, and the explicit terms of the statute cannot be met.

With regard to the claim 26 limitations of “receive, in parallel, groups of data from a source table in a source database system into the temporary tables” and “insert data from the temporary tables into a target table in the target database system”, the Examiner stated “the combination of Abrams/Bohm substantially discloses the claimed invention” (See Office Action dated 9 June 2008, Page 8). As discussed above with regard to claim 10, however, Appellants note that neither Abrams or Bohm discloses “receive, in parallel, groups of data from a source table in a source database system into the temporary tables” or “insert data from the temporary tables into a target table in the target database system”. Further, neither Taylor or Kamo provides for any of the deficiencies of Abrams and Bohm. For at least this reason, Abrams, Bohm, Taylor, and Kamo are insufficient to obviate claim 26, and withdrawal of the rejection of claim 26 is thus requested.

With regard to the claim 26 limitation of receiving, “in parallel, groups of data from a source table in a source database system into the temporary tables” the Examiner cited the following passage of Kamo as allegedly disclosing such a mechanism:

The present invention is characterized in that the parallel transfer type disk system includes a plurality of driving units for driving (moving) heads, and therefore, there are two cases, that is, a case where a plurality of head disk assemblies (HDA) each including one driving unit are provided and a case where a plurality of driving units are provided in one or a plurality of head disk assemblies.

Kamo, Column 2, Lines 36-43.

Applicants respectfully disagree. Here, Kamo generally describes a parallel transfer type disk, e.g., that includes a plurality of heads. Kamo in no manner describes or suggests an article containing instructions that cause a target database system to

receive, in parallel, groups of data from a source table in a source database system **into the temporary tables.**

For at least this reason, Abrams, Bohm, Taylor, and Kamo are insufficient to obviate claim 26, and withdrawal of the rejection of claim 26 is thus requested.

Since claims 27-30 depend from claim 26, the same distinctions apply for these claims. Additionally, claims 27-30 claim other additional combinations of features not suggested by the cited references.

Conclusion

For all of the foregoing reasons, it is respectfully submitted that claims 10-30 be allowed. A prompt notice to that effect is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Steve McDonald', with a large circular flourish at the end.

Steven T. McDonald
Registration No. 45,999

Dated: 10 November 2008

Teradata Corporation
2722 Creek Crossing Drive
McKinney, Texas 75070
Telephone: 214.566.9362
Docket No.: 10185

CLAIMS APPENDIX

1-9. (Withdrawn)

10. (Previously presented) A method of migrating data, comprising:

archiving data from a source table in a source database system;

transferring groups of the archived data, in parallel, to corresponding temporary tables in a target database system;

inserting data from the temporary tables into a target table in the target database system; and

making data in the target table available for execution of database queries against that data.

11. (Original) The method of claim 10, wherein archiving the data comprises archiving the data using a plurality of concurrently active archive modules.

12. (Original) The method of claim 11, wherein transferring the groups of data comprises restoring the groups of data, in parallel, using a plurality of restore modules.

13. (Original) The method of claim 12, further comprising communicating the groups of data between respective pairs of archive modules and restore modules across a transfer medium.

14. (Original) The method of claim 13, wherein communicating across the transfer medium comprises communicating across a pipe defined by an operating system in one of the source database system and target database system.

15. (Original) The method of claim 13, wherein communicating across the transfer medium comprises communicating through an intermediate storage system.

16. (Original) The method of claim 10, further comprising storing the source table across plural access managers, each access manager managing access to respective portions of the source table.

17. (Original) The method of claim 16, wherein transferring groups of the data comprises transferring clusters of the data, each cluster of data comprising data associated with a respective set of plural access managers.

18. (Original) The method of claim 10, further comprising copying database definitions from the source database system to the target database system.

19. (Original) The method of claim 18, further comprising creating the temporary tables in the target database system using the copied database definitions.

20. (Original) The method of claim 10, wherein archiving the data comprises archiving the data from a first source table, and transferring the groups of the archived

data comprises transferring the groups of the archived data to a first set of temporary tables, the method further comprising:

archiving data from a second source table; and

transferring groups of the archived data from the second source table, in parallel, to corresponding second set of temporary tables in the target database system.

21. (Original) The method of claim 20, further comprising inserting data from the second set of temporary tables into a second target table in the target database system.

22. (Previously presented) A method of migrating data from a first source table in a first database system to a second database system, comprising:

receiving groups of data from the source table from an intermediate medium into corresponding temporary tables in the second database system,

defining the temporary tables according to definitions of the source table;

inserting rows of the temporary tables into a target table in the second database system; and

making data in the target table available for execution of database queries against that data.

23. (Original) The method of claim 22, wherein receiving the data comprises receiving data from the groups in parallel into the corresponding temporary tables.

24. (Original) The method of claim 22, wherein receiving the data from the intermediate medium comprises receiving the data over a data network.

25. (Original) The method of claim 22, wherein receiving the data from the intermediate medium comprises receiving the data from an intermediate storage system.

26. (Previously Presented) An article comprising at least one storage medium containing instructions that when executed cause a target database system to:

receive one or more queries to set up temporary tables in the target database system;

receive, in parallel, groups of data from a source table in a source database system into the temporary tables;

insert data from the temporary tables into a target table in the target database system; and

make the data in the target table available for execution of database queries against that data.

27. (Original) The article of claim 26, wherein the instructions when executed cause the target database system to create the temporary tables using definitions for the source table.

28. (Original) The article of claim 26, wherein the instructions when executed cause the target database system to create the temporary tables to have at least one or

more of the following characteristics of the source table: columns, data types of columns, primary key, and one or more indexes.

29. (Original) The article of claim 26, wherein the instructions when executed cause the target database system to receive the groups of data comprising clusters of data.

30. (Original) The article of claim 29, wherein each cluster comprises data of plural access module processors in the source database system.

31. (Withdrawn)

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.